WHAT IS CLAIMED IS:

1. An isolated peptide of from 9 to about 70 amino acids in length, said peptide comprising at least a first contiguous amino acid sequence according to any one of SEQ ID NO:3 through SEQ ID NO:76.

2. The isolated peptide of claim 1, of from 9 to about 60 amino acids in length.

3. The isolated peptide of claim 2, of from 9 to about 50 amino acids in length.

4. The isolated peptide of claim 3, of from 9 to about 40 amino acids in length.

5. The isolated peptide of claim 4, of from 9 to about 30 amino acids in length.

6. The isolated peptide of claim 5, of from 9 to about 20 amino acids in length.

7. The isolated peptide of claim 1, said peptide comprising a first contiguous amino acid sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:4.

8. The isolated peptide of claim 1, said peptide consisting essentially of a contiguous amino acid sequence according to any one of SEQ ID NO:3 through SEQ ID NO:76.

9. The isolated peptide of claim 8, said peptide consisting of a contiguous amino acid sequence according to any one of SEQ ID NO:3 through SEQ ID NO:76.

10. The isolated peptide of claim 1, said peptide further comprising at least a second contiguous amino acid sequence according to any one of SEQ ID NO:3 to SEQ ID NO:76.

11. An isolated polypeptide consisting essentially of the amino acid sequence from position 1 to position 322 of SEQ ID NO:2.

12. The isolated polypeptide of claim 11, consisting of the amino acid sequence from position 1 to position 322 of SEQ ID NO:2.

13. A purified antibody, or antigen-binding fragment thereof, that is immunospecific for the peptide of claim 1, the polypeptide of claim 11, or a native, or biologically-active mammalian $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide.

14. The antibody or antigen-binding fragment of claim 13, wherein said antibody or antigen-binding fragment is immunospecific for the peptide of claim 1.

15. The antibody or antigen-binding fragment of claim 13, wherein said antibody or antigen-binding fragment is immunospecific for the polypeptide of claim 11.

16. The antibody or antigen-binding fragment of claim 13, wherein said antibody or antigen-binding fragment is immunospecific for a human $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide.

17. The antibody or antigen-binding fragment of claim 16, wherein said antibody or antigen-binding fragment is immunospecific for a native, or biologically-active human $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide.

18. The antibody or antigen-binding fragment of claim 13, wherein said antibody or antigen-binding fragment is immunospecific for the peptide of claim 8.

19. The antibody or antigen-binding fragment of claim 13, wherein said antibody or antigen-binding fragment is immunospecific for the peptide of claim 9.

20. The antibody or antigen-binding fragment of claim 13, wherein said antibody or antigen-binding fragment is an IgG or an IgM antibody or antigen-binding fragment thereof.

21. The antibody or antigen-binding fragment of claim 20, wherein said antigen-binding fragment is an scFv, Fv, Fab', Fab or $F(ab')_2$ fragment.

22. The antibody or antigen-binding fragment of claim 13, wherein said antibody is a monoclonal antibody.

23. The antibody or antigen-binding fragment of claim 22, wherein said antibody is a murine monoclonal antibody.

24. The antibody or antigen-binding fragment of claim 13, wherein said antibody is produced by the cell line deposited with the American *Type Culture* Collection as Accession No. X.

25. The antibody or antigen-binding fragment of claim 13, wherein said antibody is comprised within a polyclonal antiserum.

26. The antibody or antigen-binding fragment of claim 25, wherein said antibody is comprised within a polyclonal serum designated Ab-KQ.

27. The antibody or antigen-binding fragment of claim 13, wherein said antibody is a dimeric, trimeric or multimeric antibody.

28. The antibody or antigen-binding fragment of claim 13, wherein said antibody is a human or a humanized antibody.

29. The antibody or antigen-binding fragment of claim 13, wherein said antibody comprises an antigen-binding region operatively attached to a human antibody framework or constant region.

30. The antibody or antigen-binding fragment of claim 13, wherein said antibody is a chimeric antibody.

31. The antibody or antigen-binding fragment of claim 13, wherein said antibody is a recombinant antibody.

32. The peptide of claim 1, the polypeptide of claim 11, or the antibody or antigen-binding fragment of claim 13, further comprising at least a first detectable label.

33. The antibody or antigen-binding fragment of claim 32, wherein said at least a first label is a radiolabel, a chromogenic label, a fluorescent label or a labelled secondary antibody that specifically binds to said peptide, said polypeptide, or said antibody.

34. The antibody or antigen-binding fragment of claim 33, wherein said radiolabel comprises an ^{3}H, a ^{14}C, a ^{32}P, a ^{35}S, a ^{90}Y, a ^{99}Tc, an ^{125}I, or an ^{131}I label.

35. The antibody or antigen-binding fragment of claim 33, wherein said chromogenic label comprises alkaline phosphatase, peroxidase, β-glucuronidase, β-D-glucosidase, β-D-galactosidase, urease, glucose oxidase/peroxidase, or galactose oxidase/peroxidase.

36. The antibody or antigen-binding fragment of claim 33, wherein said fluorescent label comprises a fluorescent protein, fluorescein, rhodamine, or auramine.

37. The antibody or antigen-binding fragment of claim 36, wherein said fluorescent protein comprises at least a first green fluorescent protein or at least a first humanized green fluorescent protein.

38. A polyclonal antiserum comprising a plurality of antibodies immunospecific for the peptide of claim 1, the polypeptide of claim 11, or a native, or biologically-active mammalian $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide.

39. A plurality of purified polyclonal antibodies obtained from the antiserum of claim 38, said plurality of purified polyclonal antibodies immunospecific for the peptide of claim 1, the polypeptide of claim 11, or a native, or biologically-active mammalian $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide.

40. A monoclonal antibody that specifically binds to a native, or biologically active mammalian $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide, but does not bind to a mammalian $p63^{Krs1}$ peptide or polypeptide denatured under conditions of SDS-PAGE.

41. A hybridoma cell capable of producing at least a first antibody that is immunospecific for the peptide of claim 1, the polypeptide of claim 11, or a native, or biologically-active mammalian $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide.

42. A composition comprising:

(a) an isolated peptide of from 9 to about 70 amino acids in length, said peptide comprising at least a first contiguous amino acid sequence according to any one of SEQ ID NO:3 through SEQ ID NO:76;

(b) an isolated polypeptide consisting essentially of the amino acid sequence from position 1 to position 322 of SEQ ID NO:2;

(c) a native, or biologically-active mammalian $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide; or

(d) a purified antibody, polyclonal antiserum, or antigen-binding fragment thereof, that is immunospecific for the peptide of (a), the polypeptide of (b), or the peptide of polypeptide of (c), or a hybridoma cell capable of producing said antibody.

43. The composition of claim 42, further comprising at least a first pharmaceutically-acceptable excipient.

44. The composition of claim 42, further comprising at least a first immunostimulant or at least a first adjuvant.

45. The composition of claim 44, wherein said at least a first immunostimulant or said at least a first adjuvant is selected from the group consisting of a cytokine, a microsphere, Ribi Adjuvant, saponin, a microfluidized adjuvant, an immune stimulating complex, and an inactivated toxin.

46. The composition of claim 42, wherein said composition is formulated for parenteral, intravenous, intraperitoneal, subcutaneous, intranasal, transdermal, or oral administration to an animal.

47. The composition of claim 42, further comprising at least a first detection reagent.

48. The composition of claim 47, wherein said detection reagent comprises a radiolabel, a spin label, or a fluorogenic, chromogenic, or a chemiluminescent label.

49. The composition of claim 48, wherein said detection reagent specifically binds to a $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide, or to an antibody or an antigen binding fragment specific for a $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide.

50. A kit comprising:

(a) (i) an isolated peptide of from 9 to about 70 amino acids in length, said peptide comprising at least a first contiguous amino acid sequence according to any one of SEQ ID NO:3 through SEQ ID NO:76;

(ii) an isolated polypeptide consisting essentially of the amino acid sequence from position 1 to position 322 of SEQ ID NO:2;

(iii) a native, or biologically-active mammalian $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide; or

(iv) a purified antibody, polyclonal antiserum, or antigen-binding fragment thereof, that is immunospecific for the peptide of (i), the polypeptide of (ii), or the peptide of polypeptide of (iii), or a hybridoma cell capable of producing said antibody; and

(b) instructions for using said kit.

51. The kit of claim 50, wherein said kit comprises at least one component for performing immunoprecipitation, a dot blot, an ELISA, an RIA, or a Western blot.

52. The kit of claim 50, wherein said kit comprises at least one component for immunoprecipitating a native or biologically-active mammalian $p33^{QIK}$ or $p63^{Krs1}$ polypeptide from a sample.

53. A method of detecting a mammalian $p33^{QIK}$ or $p63^{Krs1}$ peptide, polypeptide, or protein in a sample comprising contacting a sample suspected of containing said peptide, polypeptide, or protein with the antibody of claim 13, the polyclonal antiserum of claim 38, the plurality of antibodies of claim 39, or the monoclonal antibody of claim 40, under conditions effective to produce immune complexes and detecting the complexes so formed.

54. The method of claim 53, wherein said sample is a biological sample.

55. The method of claim 54, wherein said sample is obtained from a human.

56. The method of claim 55, wherein said sample is a clinical sample obtained from a patient having, suspected of having, or at risk for developing, a $p33^{QIK}$ or $p63^{Krs1}$-mediated disease, and further wherein an elevated amount of said peptide, polypeptide or protein in comparison to the amount present in a clinical sample obtained from a healthy human is indicative of said disease.

57. A method of generating an immune or a T-cell response in an animal comprising administering to said animal a composition that comprises at least a first isolated peptide according to claim 1, or at least a first isolated polypetpide according to claim 11, or at

least a first nucleic acid segment that encodes said peptide or said polypeptide, in an amount and for a time sufficient to generate said immune or said T-cell response in said animal.

58. The method of claim 57, wherein said animal is a human.

59. A method of inhibiting the biological activity of a $p33^{QIK}$ or $p63^{Krs1}$ peptide or polypeptide in a cell, comprising providing to said cell at least a first composition that comprises: (a) the antibody of claim 13; (b) the polyclonal antiserum of claim 38; (c) the plurality of antibodies of claim 39; or (d) the monoclonal antibody of claim 40, in an amount effective and for a time sufficient to inhibit the biological activity of said peptide or polypeptide in said cell.

60. The method of claim 59, wherein said cell is comprised within an animal.